

REMARKS

In response to the Office action dated November 26, 2010, Applicants have amended claims 1, 27, and 31. Support for this amendment can be found, e.g., in Fig. 1 and page 9, lines 9-13 of the specification. Applicants have also corrected a minor deficiency in claim 21. No new matter has been introduced by the above amendments. Claims 1-4, 6, 14-21, 24-27, and 31 are presented for examination.

Initially, Applicants would like to thank the Examiner for the telephone conference with their counsel on February 1, 2011. A letter dated January 24, 2011 was sent to the Examiner to facilitate discussion in the interview. A copy of this letter is attached hereto as "Exhibit A" to serve as a partial summary of the interview. During the interview, the patentability of independent claims 1, 27, and 31 was discussed in view of the prior art cited in the Office action. At the end of the interview, the Examiner indicated that none of the cited prior art discloses or renders obvious cylinder 42 shown in Fig. 1 of the present specification and suggested that the claims, if amended to recite this element, would be patentable over the cited art. To advance prosecution, Applicants have amended independent claims 1, 27, and 31 pursuant to the Examiner's suggestion.

Claims 1-4, 6, 14-21, 24-27, and 31 are rejected under 35 U.S.C. § 112, 1st paragraph as failing to comply with the written description requirement. Applicants do not agree with the Examiner's rejection. However, in the sole interest of moving this application toward allowance, Applicants have amended independent claims 1, 27, and 31 to obviate this rejection. Accordingly, Applicants request reconsideration and withdrawal of this rejection.

Claims 1-4, 6, 14-21, 24, 26, 27, and 31 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Richter, et al., DE 42 41 074 ("Richter") in view of Van't Hoff, U.S. Patent No. 6,616,017 ("Van't Hoff") or Couffer, U.S. Patent No. 3,228,559 ("Couffer"), and further in view of Berube et al., U.S. Patent No. 5,179,982 ("Berube"). Claim 25 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Richter in view of Van't Hoff or Couffer, and further in view of Berube and Lippman et al., U.S. Patent No. 5,423,454 ("Lippman").

Applicants discuss independent claims 1, 27, and 31 first. Claims 1, 27, and 31, as amended, recite a pressure package system that includes a cylinder in a high pressure chamber (or a reservoir propellant chamber) having first and second open ends, in which the first open

end connects to the opening of a working pressure chamber (or a working propellant chamber) and the second open end is closed off by the pressure controller. As discussed above, none of the cited art discloses or renders obvious such a pressure package system. Thus, amended claims 1, 27, and 31 would not have been obvious over the cited art. Since claims 2-4, 6, 14-21, and 24-26 depend from claim 1, they also would not have been obvious over the cited art.

Accordingly, Applicants request reconsideration and withdrawal of this rejection.

Applicants submit that the application is now in condition for allowance, an action of which is requested.

Any circumstance in which Applicants have: (a) addressed certain comments of the Examiner does not mean that Applicants concede other comments of the Examiner; (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for the patentability of those claims and other claims; or (c) amended a claim does not mean that Applicants concede any of the Examiner's positions with respect to that claim or other claims.

Please apply any charges to deposit account 06-1050, referencing Attorney's Docket No. 25943-0004US1.

Respectfully submitted,

Date: February 3, 2011

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EXHIBIT A

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VIA FACSIMILE

January 24, 2011

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Re: PRESSURE PACKAGE SYSTEM

Application No.: 10/542,831
Our Ref.: 25943-0004US1



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Dear Examiner Jacyna:

Thank you for granting a telephone interview, scheduled for Tuesday, January 25, 2011 at 1:30 PM, to discuss the prior art rejections raised in the office action dated November 26, 2010 ("Office Action"). This letter outlines what we would like to discuss with you during the telephone interview.

In the Office Action, claims 1-4, 6, 14-21, 24-27, and 31 are rejected under 35 U.S.C. §103(a) as being unpatentable over Richter in view of Van't Hoff, Couffer, Berube, and Lippman. We focus our discussion on independent claim 1, which recites a system that includes (1) a product chamber for holding a fluid; (2) a working pressure chamber for holding a propellant at a substantially constant working pressure, (3) a high pressure chamber configured to hold the propellant at a pressure higher than the working pressure, (4) a pressure controller in a fluid connection between the working pressure chamber and the high pressure chamber, the pressure controller containing a reference pressure chamber confining a gas at a reference pressure and (5) a wall movable relative to the pressure controller.

The primary reference cited by the Office, i.e., Richter, discloses a lubricant dispenser having a lubricant reservoir 1, a lubricant release opening 2, a dosing piston 3 movable in lubricant reservoir 1, a pressure gas cartridge 4, a pressure gas outlet 5, a diffusion choke 6, and a gas inlet 7. As correctly pointed out by the Office, Richter does not disclose or render obvious a pressure controller having a reference pressure chamber, as required by claim 1.

The Office asserts that it would have been obvious to replace the pressure controller disclosed in Richter with that disclosed in Van't Hoff or Couffer. See the Office Action, pages 4 and 6. We cannot agree.

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First, the Office refers to component 5 disclosed in Richter as a pressure controller. See the Office Action, page 3, 2nd paragraph. However, as discussed above, component 5 disclosed in Richter is a gas outlet. It is not clear to us how a gas outlet can be used as a pressure controller.

Second, if the Office's position is that gas outlet 5, diffusion choke 6, and gas inlet 7 disclosed in Richter together function as a pressure controller, we would like to point out that it would not have been obvious to replace the pressure controller disclosed in Richter with that disclosed in Van't Hoff or Couffer.

Specifically, Richter emphasizes that "[t]he invention is based on the insight that a diffusion choke employed as described effects a lubricant release from the lubricant dispenser for long and very long periods of time, more specifically such that throughout the service life the release of a small and also very small lubricant release rate can be ensured, with a high accuracy." See page 2, lines 27-31; emphasis added. In view of the above teaching, it would have been apparent to one skilled in the art that diffusion choke 6 is a critical component of the lubricant dispenser disclosed in Richter, which would not function properly without diffusion choke 6.

Further, Richter teaches that "[d]iffusion choke have pores allowing an equilibrium action in the manner described [i.e., a thermal movement of particles (here gas atoms) from a place of higher concentration to a place of lower concentration]." See page 2, lines 13-24. Thus, as the lubricant in Richter's lubricant dispenser is constantly released at a very small release rate throughout the service life of the dispenser, the gas in pressure cartridge 4 continuously diffuses through diffusion choke 6 to a space located between a wall attached to pressure gas inlet 7 and dosing piston 3, which is considered by the Office as a "working pressure chamber." In other words, due to the presence of diffusion choke 6, the pressure in the pressure cartridge 4 and the "working pressure chamber" disclosed in Richter continuously decreases as the lubricant is released from the dispenser. This is a working principle completely different from that employed by the pressure controller disclosed in Van't Hoff or Couffer, which maintains a relative constant pressure in a working propellant chamber. The Office is reminded that "[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious." See MPEP 2143.01 VI.

For at least the reasons set forth above, one skilled in the art would not have replaced the pressure controller disclosed in Richter with that disclosed in Van't Hoff or Couffer.

Further, even assuming the pressure controller disclosed in Richter somehow could be replaced with that disclosed in Van't Hoff or Couffer, the resultant lubricant dispenser would not function satisfactorily for its intended purpose. Indeed, the

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reference chamber in the pressure controller in Van't Hoff or its equivalent in Couffer would maintain a constant pressure in the "working pressure chamber," which would prevent the lubricant in lubricant reservoir 1 from being released at a targeted small release rate from the dispenser. For example, when the pressure in the reference chamber is higher than that in the "working pressure chamber," the pressure controller would quickly supply gas into the "working pressure chamber" from pressure cartridge 4. As a result, the lubricant would be released at a rate much higher than the targeted rate, thereby significantly reducing the service life of the lubricant dispenser. Note that Richter resolves this issue by using diffusion choke 6, which only allows the gas in pressure cartridge 4 to slowly diffuse into its "working pressure chamber," thereby ensuring a very small release rate and a guaranteed service life. According to MPEP 2143.01V, "If proposed modification would render the prior art invention being modified unsatisfactory for its intended purpose, then there is no suggestion or motivation to make the proposed modification." Here, as the proposed modification would render Richter's dispenser unsatisfactory for its intended purpose, it would not have been obvious to combine Richter with Van't Hoff or Couffer in the manner suggested by the Office.

Like Van't Hoff and Couffer, neither of the other two references cited by the Office, i.e., Berube and Lippman, cures the deficiencies in Richter.

Of note, we are willing to limit the pressure controller recited in claim 1 to one that includes a closing member movable relative to the reference chamber for releasing and closing the fluid connection between the working pressure chamber and the high pressure chamber (e.g., plunger 17 shown in Figure 1 of the present application) to further distinguish the pressure controller recited in claim 1 from that disclosed in Richter. Further, we propose to remove the word "entirely" from claim 1 to obviate the written description rejection of this claim and the objection to the specification.

We look forward to speaking to you.

Very truly yours,



Tony Zhang, Ph.D.

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